Claims

[c1] I Claim:

1. A device utilizing a helical baffle contained in a generally cylindrical housing;

sealed at the exterior radius and open or sealed at the interior radius;

positioned at an angle of >0 and <90 degrees from horizontal;

the housing being supported by a thrust bearing allowing rotation around the axis of the housing while constraining axial motion;

with a mechanism of mechanical transfer from the housing to off take rotational mechanical energy and transfer it to some form of productive use;

whereby a fluid is introduce in to the high end of the housing/baffle assembly and while causing rotation of the housing and baffle is conveyed to the lower end and discharged; thus extracting potential energy and converting same to kinetic, mechanical and frictional energy.

[c2] 2. The device described in Claim 1,5 or 6 where in the housing is shaped in a cylindrical like structure of varying radii along the axis in order to maximize energy conversion from potential fluid energy to rotational

kinetic and mechanical energy while minimizing losses due to frictional effects and kinetic energy of the fluid at the points of intake and discharge.

[c3] 3. The device described in Claim 1, 5 or 6 wherein the method of rotational mechanical energy off take is accomplished by an axial shaft at the center of the housing.

4. The device described in Claim 1, 5 or 6 wherein the method of rotational mechanical energy off take is accomplished by a mechanical transfer from the exterior of the housing.

[c4] 5. The device described in Claims 6 wherein the design of the baffle allows a small leakage at the exterior radius to accomplish draining of the device over an extended period of time when out of operation.

[c5] 6. The device described in Claim 1, wherein the design of the baffle allow a leakage at the center radius to accomplish priming of the device such that prior to beginning of rotation and during startup, the fluid in higher baffle chambers can spill over into lower baffle chambers until adequate torque is generated to initiate rotation of the housing.

[c6] 7. The device described in Claim 1, 5 or 6 wherein a bulb shaped housing at the top, entrance end of the device is utilized with siphoning supply

piping to accomplish fluid transmission from the supplying reservoir to the device.

[c7] 8. The device described in Claims 1 or 5 wherein energy is applied to the housing and baffle assembly in an opposite direction to the natural force of fluid on the helix, thereby creating a lifting device to move the fluid from a lower to higher elevation.

[c8] I Claim:

9. A device utilizing a helical baffle contained in a generally cylindrical housing;

sealed at the junction of the helical baffle and the cylindrical housing (exterior radius) but allowing the helix to rotate relative to the housing and open or sealed at the interior radius;

positioned at an angle of >0 and <90 degrees from horizontal;

the baffle being supported by a thrust bearing allowing rotation around the axis of the housing while constraining axial motion;

with a mechanism of mechanical transfer from the baffle to off take rotational mechanical energy and transfer it to some form of productive use;

whereby a fluid is introduced in to the high end of the housing/baffle assembly and while causing rotation of the baffle is conveyed to the lower end and discharged; thus

extracting potential energy and converting the same to kinetic, mechanical and frictional energy.

[c9] 10. The device described in Claim 9, 11 or 12 wherein the housing is shaped in a cylindrical like structure of varying radii along the axis in order to maximize energy conversion from potential fluid energy to rotational kinetic and mechanical energy while minimizing losses due to frictional effects and kinetic energy of the fluid at the point of discharge.

[c10] 11. The device described in Claims 9 wherein the design of the baffle to housing seal allows a small leakage at the exterior radius to accomplish draining of the device over an extended period of time when out off operation.

[c11] 12. The device described in Claim 9 wherein the design of the baffle allow a leakage at the center radius to accomplish priming of the device such that prior to beginning of rotation and during startup, the fluid in higher baffle chambers can spill over into lower baffle chambers until adequate torque is generated to initiate rotation of the housing.

[c12] 13. The device described in Claims 9, 11 or 12 wherein a bulb shaped housing at the top, entrance end of the device is utilized with siphoning

supply piping to accomplish fluid transmission from the supplying reservoir to the device.

[c13] 14. The device described in Claims 9, 11 or 12 wherein energy is applied to the baffle assembly in an opposite direction to the natural force of fluid on the helix, thereby creating a lifting device to move the fluid from a lower to higher elevation.